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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/808,243 | 03/25/2004 | Kazushige Noguchi | FUJI 141 | 5025 |
| 7590 10/18/2005 | | | | |
| RABIN & BERDO, P.C. Suite 500 1101 14th Street Washington, DC 20005 | | EXAMINER HUNNINGS, TRAVIS R | | |
| | | ART UNIT 2632 PAPER NUMBER | | |

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,243

Applicant(s)

NOGUCHI, KAZUSHIGE

Examiner

Travis R. Hunnings

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because in figure 3, the label titled "304 Barcode" should be relabeled to "302 Barcode" to match the specification also elements 134 and 136 of figure 1 and element 570 of figure 8 are not described in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 5 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkpatrick (US Patent 6,885,312) in view of Slemmer et al. (Slemmer; US Patent Publication 2004/0252034).

Regarding claim 1, Kirkpatrick discloses *Method And System For Mapping Vehicle Parking* that has the following claimed limitations:

The claimed plurality of wireless LAN base stations installed in the parking lot for wirelessly transmitting and receiving the parking information, each of the plurality of wireless LAN base stations having a transmittable and receiving, the plurality of wireless LAN base stations forming a wireless LAN system such that each of the plurality of wireless LAN base stations can wirelessly connect to a wireless LAN mobile station of a mobile object when the mobile object exists in its own transmittable and receivable area is met by the multiple transmitters, each with its own transmit and receive area, transmitting and receiving information regarding parking information of a certain set of

parking space sensors/detectors to mobile receivers in the area as seen in figure 2 (column 6, lines 46-62).

Kirkpatrick, however, does not specifically disclose the claimed centralized server for managing the parking information that has communication means for communicating the parking information between the plurality of wireless LAN base stations and the server via an IP network operating with internet protocol and wherein the wireless LAN mobile station and the server can communicate the parking information through the wireless LAN system and the communication means. Slemmer discloses *Automated Parking Director Systems And Related Methods* that teaches using a centralized processor to receive and store information regarding parking lot information from a plurality of object (parking space) detectors over a wired or wireless communication link and also providing that parking information back to wireless communication devices, such as those in vehicles as shown in figure 2 (paragraph 33). Adding a central server/processor to the system of Kirkpatrick would provide a way to store parking information from the plurality of transmitters and provide that information to users through other means such as the internet and would therefore be more beneficial to users. The claimed communication being via an IP network operating with internet protocol would have been obvious to one of ordinary skill in the art as a viable option for a communication link. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Kirkpatrick according to the teachings of Slemmer to include a centralized processor/server that

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can communicate with the plurality of transmitters (wireless LAN base stations) and the mobile objects through communication means.

Regarding claim 2, Kirkpatrick and Slemmer disclose all of the claimed limitations. The claimed system further comprising a plurality of parking condition detection devices respectively corresponding to the plurality of parking spaces wherein each of the plurality of parking condition detection device includes parking condition detecting means for detecting a parking condition showing whether the corresponding parking space is occupied or not by a vehicle and outputs a parking condition signal showing the parking condition is met by the occupancy indicating means located in each parking space (column 5, lines 53-57) generating a signal with respect to its parking space (column 6, lines 46-62) with regards to the occupied status of the space.

The claimed server including parking condition registration means for identifying and registering the parking condition signal per each parking space is met by the processor of Slemmer monitoring the object detection data from each parking space (paragraph 33).

The claimed wireless LAN system being configured such that each of the plurality of wireless LAN base stations are wirelessly connected to the corresponding parking condition detection devices within its own transmittable and receivable area is met by the transmitters receiving parking space information from its respective parking spaces as shown in figure 2 (column 6, lines 46-62).

The claimed parking information being communicated between the plurality of parking condition detection devices and the server through the wireless LAN system and the communication means, and the parking condition signal is supplied to the server so as to be registered by the parking condition registration means is met by the processor monitoring the parking spaces through the transmitters (paragraph 33).

Regarding claim 4, Slemmer discloses the parking space detectors being one of infrared indicators, acoustic indicators, lasers, optical indicators, weight sensors, magnetic sensors or the like; it would have been obvious to one of ordinary skill in the art that an infrared sensor reflecting light off a barcode placed on the floor of the parking space in order to determine if the space was empty or not.

Regarding claim 5, the claimed server including parking condition information generating means for extracting the registered parking condition signal and for generating a parking condition information signal which indicates the parking condition and the server supplies the parking condition information signal to the wireless LAN mobile station through the wireless LAN system and the communication means is met by the transmitters receiving and sending the occupancy signals from the parking space detection means (column 6, lines 46-62) and the server being connected to the transmitters as shown in the rejection to claim 1 stated above (paragraph 33).

Regarding claim 8, the claimed parking condition information signal including a voice signal which indicates a non-occupied parking space by voice is met by the information received by a transmitter being broadcast by voice over a speaker (column 7, lines 46-53).

Regarding claim 9, the claim is interpreted and rejected as claim 8 stated above. The claimed 'software' used to produce the voice in response to the signal would have been obvious to one of ordinary skill in the art to implement in vehicle systems using a computer system.

Regarding claim 10, the claimed parking condition information signal includes an image signal which displays a map near the wireless LAN mobile station and indicates a non-occupied parking space in the displayed map is met by the information received from the transmitters being displayed as a visual map to the vehicle operator showing unoccupied spaces (column 7, lines 10-33).

Regarding claim 11, the claim is interpreted and rejected as claim 10 stated above. The claimed 'software' used to produce the voice in response to the signal would have been obvious to one of ordinary skill in the art to implement in vehicle systems using a computer system.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkpatrick in view of Slemmer and further in view of Li (US Patent 6,917,307).

Regarding claim 3, Kirkpatrick and Slemmer disclose all of the claimed limitations except for the claimed server periodically outputs a parking condition detection request signal, which requests detection of the parking condition to each of the plurality of parking condition detection devices through the wireless LAN system and the communication means. Li discloses *Management Method And System For A Parking Lot* that teaches a centralized server that periodically queries the parking detection sensors for a detection signal (Li: claim 8). Modifying the system of Kirkpatrick and Slemmer to periodically query the parking detection means would allow the system to keep an updated accounting of the unoccupied parking spaces. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Kirkpatrick and Slemmer according to the teachings of Li to periodically query the parking sensors from the central processor (server) to keep an updated account of the unoccupied spaces.

5. Claims 6, 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkpatrick in view of Slemmer and further in view of Clapper (US Patent 6,147,624).

Regarding claim 6, Kirkpatrick and Slemmer disclose all of the claimed limitations except for the claimed mobile object generates a parking condition information request signal requesting parking condition information and supplying the parking condition information request signal to the wireless LAN mobile station and the parking condition information generating means generates the parking condition information signal in response to the parking condition information request signal and the parking condition information request signal is supplied from the wireless LAN mobile station to the server through the wireless LAN system and the communication means. Clapper discloses *Method And Apparatus For Parking Management System For Locating Available Parking Space* that teaches a mobile device requesting information regarding unoccupied parking spaces to a base station that returns information regarding unoccupied parking spaces through communication means as shown in figure 4. Modifying the device to allow the mobile device to generate requests for parking space information would give the user a way to receive desired parking space information upon command. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Kirkpatrick and Slemmer according to the teachings of Clapper to allow the mobile device to request parking information through the communication means to the server that provides the information to the device.

Regarding claim 7, the claimed server detecting a certain number of parking spaces near the wireless LAN mobile station in response to the parking condition

information request signal and the parking condition information generating means extracts the parking condition signals respectively corresponding to the certain number of parking spaces and generates the parking condition information signals is met by the transmitters transmitting and receiving information only regarding parking spaces in their vicinity as shown in figure 2 (Kirkpatrick: column 6, lines 46-62).

Regarding claim 12, Kirkpatrick and Slemmer disclose all of the claimed limitations except for the claimed server including vehicle position registration means for identifying and registering a vehicle position signal, which shows a vehicle position, in connection with the wireless LAN mobile station, the mobile object generating the vehicle position signal and supplying the vehicle position signal to the wireless LAN mobile station, and the vehicle position signal is supplied from the wireless LAN mobile station to the server through the wireless LAN system and the communication means. Clapper teaches a GPS device located in the vehicle for transmitting the current vehicle position to the central server so that the server can calculate the needed route to reach the closest unoccupied parking space as shown in figures 3 and 4 (column 2, lines 56-67). Adding a GPS device to the mobile device and transmitting the car's location to the central server so the server can calculate a desired route would make the device easier to use and more functional by showing the operator exactly where to go to find the nearest open space. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Kirkpatrick and

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Slemmer according to the teachings of Clapper to include a position detecting device and providing the server with the vehicle position through the communication link.

6. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkpatrick in view of Slemmer further in view of Clapper and further in view of Johnson et al. (Johnson; US Patent 6,694,258).

Regarding claim 13, Kirkpatrick, Slemmer and Clapper disclose all of the claimed limitations except for the claimed server including vehicle position information generating means for extracting the registered vehicle position and for generating a vehicle position information signal which indicates the vehicle position and the vehicle position information signal being supplied from the server to the wireless LAN mobile station through the wireless LAN system and the communication means. Johnson discloses *Hand Held Car Locator* that teaches a mobile device that stores the location of a parked vehicle in a parking lot with a centralized server and retrieving that information using the mobile device to locate the parked vehicle (column 2, lines 51-65). Modifying the system of Kirkpatrick, Slemmer and Clapper to include a mobile device that can retrieve the location of the vehicle stored at the central server would help guide the user back to their vehicle. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Kirkpatrick, Slemmer and Clapper according to the teachings of Johnson to include a device which

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stores the position of the vehicle at the central server and a mobile device that can request the location information from the server upon command.

Regarding claim 14, the claim is interpreted and rejected as claim 13 stated above.

Regarding claim 15, the claim is interpreted and rejected as claim 8 stated above.

Regarding claim 16, the claim is interpreted and rejected as claim 9 stated above.

Regarding claim 17, the claim is interpreted and rejected as claim 10 stated above.

Regarding claim 18, the claim is interpreted and rejected as claim 11 stated above.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkpatrick in view of Slemmer further in view of Clapper further in view of Johnson and further in view of Li.

Regarding claim 19, Kirkpatrick, Slemmer, Clapper and Johnson disclose all of the claimed limitations except for the claimed plurality of parking spaces respectively having lighting systems to indicate the vehicle position, the vehicle position information signal includes a lighting control signal to indicate the vehicle position by activating one of the plurality of lighting systems, the wireless LAN system being configured such that the plurality of wireless LAN base stations are wirelessly connected to the plurality of lighting systems within the respective transmittable and receivable areas, the lighting control signal being supplied from the server to the one of the plurality of lighting systems through the wireless LAN system and the communication means and the one of the plurality of lighting systems are activated in response to the lighting control signal. Li teaches guiding lights located on the floor of the parking lot or garage that guide drivers to unoccupied spots in the garage (column 3, lines 38-48). It would have been obvious to one of ordinary skill in the art to include the lighting systems of Li and modify the system to both guide a vehicle to an unoccupied space and to guide a operator back to the parked vehicle upon the operator requesting the vehicle location from the central server as taught by Johnson (see rejection to claim 13 above) in order to more easily guide the operator back to their vehicle. The claimed 'wireless' controlling of the lighting systems would have been obvious to one of ordinary skill in the art to use either a wired or wireless controlling system. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Kirkpatrick, Slemmer, Clapper and Johnson according to the teachings of Li to include lighting systems to guide the user to open spots and back to their vehicles.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkpatrick in view of Slemmer and further in view of Haynes et al. (Haynes; US Patent 6,816,085).

Regarding claim 20, Kirkpatrick and Slemmer disclose all of the claimed limitations except for the claimed additional wireless LAN base stations being provided at an entrance and an exit of the parking lot being wirelessly connected to the mobile object to detect entrance and exit of the wireless LAN mobile station into and from the parking lot, providing the server an entrance and exit signal and storing the entrance and exit time at the server. Haynes discloses *Method For Managing A Parking Lot* that teaches placing parking interaction devices at the entrance and exit of a parking lot that registers the entrance and exit of a vehicle for charging the vehicle a fee based on the length of time spent in the parking lot (column 5, lines 16-35). Adding transmitters to the entrance and exit of the parking lot system of Kirkpatrick and Slemmer while also providing the server with means to register and store the entrance and exit time of vehicles would allow the owner of the lot to easily compute and receive the fee for parking lots that charge to park. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Kirkpatrick and Slemmer according to the teachings of Haynes to include transmitters at the entrance and exit of the parking lot that are capable of registering the enter and exit times of a vehicle in order to charge the vehicle a fee to park.

Regarding claim 21, Kirkpatrick, Slemmer and Haynes disclose all of the claimed limitations except for the claimed requesting signal requesting a presentation of a parking time and/or a parking fee. Examiner takes official notice that it is well known in the art for toll systems to display time and/or parking fee information on a display board located at the exit of parking lots when a vehicle is exiting the lot in order to allow the user to double-check the amount that was charged.

Regarding claim 22, the claimed wireless LAN base station being provided at a store which ties up with the parking lot so that the parking information can be communicated at the store is met by the transmitter being located at a business as shown by Kirkpatrick figure 1 (column 3, lines 39-50).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kersken et al. *Method And Apparatus For Locating An Available Parking Facility*,
US Patent 5,748,107;

Hall, *Computerized Parking Facility Management System*, US Patent 6,340,935;

Ayed, *Parked Vehicle Locator*, US Patent 6,405,125;

MacPhail et al. *System And Method For Automated Parking*, US Patent
6,646,568;

Pugliese, III, *Electronic System For Parking Management And Personal Guidance*, US Patent 6,865,539;

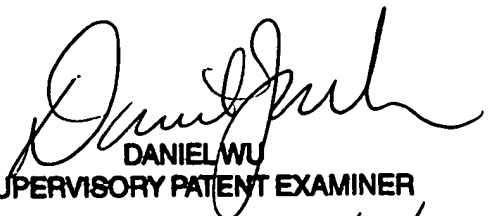
Racunas Jr. *Web-Based Systems And Methods For Internet Communication Of Substantially Real-Time Parking Data*, US Patent 6,946,974.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


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10/15/05